

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-101021

(43)Date of publication of application : 07.04.2000

(51)Int.Cl.

H01L 27/04

H01L 21/822

(21)Application number : 10-264285

(71)Applicant : HITACHI LTD

(22)Date of filing : 18.09.1998

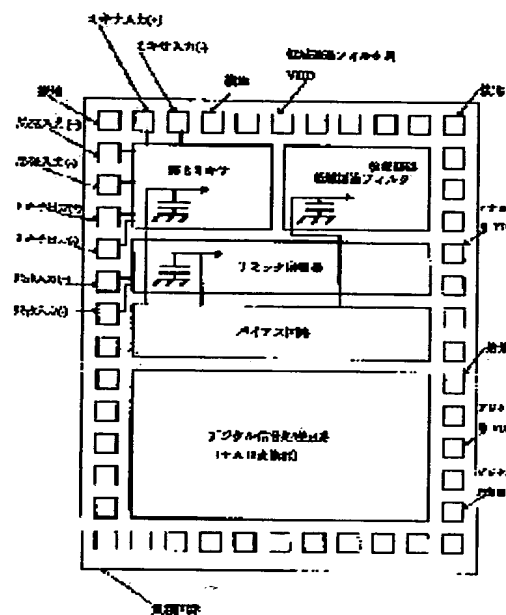
(72)Inventor : TANAKA SATOSHI  
NAGAI KENJI

## (54) SEMICONDUCTOR INTEGRATED CIRCUIT

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To restrain the effects of noises emitted from a digital signal processing circuit so as to improve a semiconductor integrated circuit in reception sensitivity by a method, wherein an analog circuit that deals with signals of highest frequencies is arranged between a circuit that deals with large analog signals and a digital circuit.

**SOLUTION:** A second mixer circuit, that deals with smallest signals of highest frequency, is arranged farthest from a digital signal processing circuit compared to other circuits, so as to lessen the effects of digital signals and to mount an analog circuit and the digital signal processing circuit are formed on the same board. Input/output pads, a power supply terminal, and a grounding terminal for an analog circuit are arranged farthest from a power supply terminal and a grounding terminal for a digital signal processing circuit. For instance, they are diagonally arranged, whereby the effects of noises can be reduced. Furthermore, a bias generating circuit is arranged between a limiting amplifier and a digital signal processing circuit which functions as a guard band that causes noises to attenuate. With this setup, a digital/analog integrated circuit which takes into consideration the propagation characteristics of noises can be obtained.



## LEGAL STATUS

[Date of request for examination]

11.03.2003

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]